

**Abstract**

A thin flat panel display for aircraft cockpits. These displays use a dual CPU/graphics generator system to produce simulated aircraft instrumentation displays which are color coded to indicate when one of the graphic generators has not correctly received data from the aircraft system bus. The displays use standard graphic generators and CPUs, and do not require additional software. The displays also allow the aircraft systems to be continuously tested while the aircraft is on the ground. Moreover, the inventive systems include input touch devices which access external memories to display necessary flight and landing information which allow the cockpit crew to expand in detail the external information for display on the flat panels.